

$^{127}\text{I}(\text{p,n})$ 1999Pa03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

1999Pa03: $E_p=94.1, 159.1, \text{ and } 197.4$ MeV; TOF, n, n-n coin(polarimeter), n-p coin; FWHM=250,280,180 keV at incident energies of 94.1, 159.1 and 197.4 MeV respectively; measured $d^2\sigma/(d\Omega dE)$ at 0 degree, deduced GT strength in excited energy range, $E_x=0-20$ MeV.

About solar neutrino due to ^7Be decay chain, the cross section by the $^{127}\text{I}(\nu,e)^{127}\text{Xe}$ reaction is estimated to be $(1.22\ 40)\times 10^{-45}$ cm^2 (1999Pa03).

 ^{127}Xe Levels

E(level) [†]	J^π	$T_{1/2}$	Comments
0.0	$1/2^+$	36.4 d <i>I</i>	
124.751 20	$3/2^+$	0.28 ns <i>I</i>	Allowed beta-decay transition strength (transition matrix element) is deduced to be $B(\text{GT})=0.0232\ 40$, here 40 is statistical uncertainty. The systematics uncertainty is estimated to be +13, -84 (1999Pa03).

[†] From Adopted Levels.